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NEW MEXICO  
ENVIRONMENT DEPARTMENT

*Surface Water Quality Bureau*

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KYAN FLYNN  
Cabinet Secretary-Designate

BUTCH TONGATE  
Deputy Secretary

ERIKA SCHWENDER  
Director

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**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

August 15, 2013

Ms. Debi Lee, Village Manager  
Village of Ruidoso  
313 Cree Meadows Dr.  
Ruidoso, NM 88345

Mr. Cleatus Richards, Utilities Director  
City of Ruidoso Downs  
P.O. Box 348  
Ruidoso Downs, NM 88346

**Re: Major Municipal, SIC 4952, NPDES Compliance Evaluation Inspection, Ruidoso/Ruidoso Downs WWTP, NM0029165, July 22, 2013**

Dear Ms. Lee and Mr. Richards,

Enclosed, please find a copy of the report and checklist for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the Federal Clean Water Act.

Findings are based on the inspector's observances in regards to specific requirements of the NPDES permit. The Ruidoso WWTP received an overall evaluation rating of "4" on a scale of 1 to 5. The evaluation indicates the quality of the self-monitoring program for a specific facility. The highest rating of "5" is used for facilities with very reliable self-monitoring programs, a "3" is considered satisfactory, and a "1" is used for very unreliable self-monitoring programs.

The main issue was found relating to Laboratory Procedures. Please refer to the Further Explanations section of the report for more detail.

I wish to thank you for the cooperation extended to the NMED while at the Ruidoso Wastewater Treatment Plant by Bobby Snowden and Isaac Garcia. If you have any questions about this inspection report, please contact me at (505) 222-9587 or [sarah.holcomb@state.nm.us](mailto:sarah.holcomb@state.nm.us).

Sincerely,  
/s/ Sarah Holcomb  
Sarah Holcomb  
Environmental Scientist/Specialist  
Surface Water Quality Bureau

Cc: Carol Peters-Wagnon, USEPA (6EN-WM) by email  
Hannah Branning, USEPA (6EN-AS), by email  
Samuel Tate, USEPA (6EN-AS) by email  
Rashida Bowlin, USEPA (6EN-AS) by email

Larry Giglio, USEPA (6WQ-P) by email  
Diana McDonald, USEPA (6EN-WM) by email  
Frank Fiore, NMED District III Manager, by email



Form Approved  
OMB No. 2040-0003  
Approval Expires 7-31-85

## NPDES Compliance Inspection Report

### Section A: National Data System Coding

Transaction Code	NPDES	yr/mo/day	Inspec. Type	Inspector	Fac Type
1 <input type="text" value="N"/> 2 <input type="text" value="5"/> 3 <input type="text" value="N"/> <input type="text" value="M"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="2"/> <input type="text" value="9"/> <input type="text" value="1"/> <input type="text" value="6"/> <input type="text" value="5"/>	11 <input type="text" value="1"/> <input type="text" value="3"/> <input type="text" value="0"/> <input type="text" value="6"/> <input type="text" value="2"/> <input type="text" value="5"/>	17 <input type="text" value="C"/>	19 <input type="text" value="S"/>	20 <input type="text" value="1"/>	
Remarks					
<input type="text" value="M"/> <input type="text" value="A"/> <input type="text" value="J"/> <input type="text" value="O"/> <input type="text" value="R"/> <input type="text" value="W"/> <input type="text" value="W"/> <input type="text" value="T"/> <input type="text" value="P"/>					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67 <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> 69	70 <input type="text" value="4"/>	71 <input type="text" value="N"/>	72 <input type="text" value="N"/>	73 <input type="text" value=""/> <input type="text" value=""/>	74 <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> 80

### Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) <b>RUIDOSO DOWNS WWTP, LINCOLN COUNTY, NEW MEXICO; DRIVE THROUGH RUIDOSO, TURN EAST ON NM70. TRAVEL THROUGH RUIDOSO DOWNS; FACILITY IS AT 26675 US 70.</b>	Entry Time /Date 1100 HOURS / 7-22-2013	Permit Effective Date 8-1-2012
	Exit Time/Date 1615 HOURS / 7-30-2012	Permit Expiration Date 7-31-2017
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) MR. BOBBY SNOWDEN, DEPARTMENT MANAGER (575) 378-8417 MR. ISAAC GARCIA, CHIEF OPERATOR		Other Facility Data
Name, Address of Responsible Official/Title/Phone and Fax Number MS. DEBI LEE, VILLAGE MANAGER, VILLAGE OF RUIDOSO 313 CREE MEADOWS DR, RUIDOSO, NM 88345 MR. CLEATUS RICHARDS, UTILITIES DIRECTOR, CITY OF RUIDOSO DOWNS PO BOX 348, RUIDOSO DOWNS, NM 88346	Contacted Yes <input type="checkbox"/> No <input type="checkbox"/> *	GPS: N. 33° 21' 38" W. -105° 32' 36"  SIC: 4952

### Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

<input type="text" value="S"/> Permit	<input type="text" value="S"/> Flow Measurement	<input type="text" value="S"/> Operations & Maintenance	<input type="text" value="N"/> CSO/SSO
<input type="text" value="M"/> Records/Reports	<input type="text" value="S"/> Self-Monitoring Program	<input type="text" value="S"/> Sludge Handling/Disposal	<input type="text" value="N"/> Pollution Prevention
<input type="text" value="S"/> Facility Site Review	<input type="text" value="N"/> Compliance Schedules	<input type="text" value="N"/> Pretreatment	<input type="text" value="N"/> Multimedia
<input type="text" value="S"/> Effluent/Receiving Waters	<input type="text" value="M"/> Laboratory	<input type="text" value="N"/> Storm Water	<input type="text" value="N"/> Other:

### Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

- INSPECTORS ARRIVED AT THE FACILITY AT 1100 HOURS ON JUNE 25, 2013 AND CONDUCTED ENTRANCE INTERVIEW WITH MR. BOBBY SNOWDEN AND MR. ISAAC GARCIA. THE INSPECTOR MADE INTRODUCTIONS, PRESENTED HER CREDENTIALS AND DISCUSSED THE PURPOSE OF THE INSPECTION.
- PLEASE SEE INSPECTION REPORT FOR FURTHER DETAILS.

Name(s) and Signature(s) of Inspector(s) Sarah Holcomb /s/ Sarah Holcomb	Agency/Office/Telephone/Fax 505-222-9587	Date 8-15-2013
Signature of Management QA Reviewer Bruce Yurdin /s/ Bruce Yurdin	Agency/Office/Phone and Fax Numbers 505-827-2798	Date 8-14-2013

RUIDOSO/RUIDOSO DOWNS WWTP		PERMIT NO. NM0029165
SECTION A - PERMIT VERIFICATION		
PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS DETAILS:		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>NO</u> )
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
4. ALL DISCHARGES ARE PERMITTED		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
SECTION B - RECORDKEEPING AND REPORTING EVALUATION		
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. DETAILS:		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>NO</u> )
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
b) NAME OF INDIVIDUAL PERFORMING SAMPLING		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
c) ANALYTICAL METHODS AND TECHNIQUES.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
d) RESULTS OF ANALYSES AND CALIBRATIONS.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
e) DATES AND TIMES OF ANALYSES.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
f) NAME OF PERSON(S) PERFORMING ANALYSES.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
SECTION C - OPERATIONS AND MAINTENANCE		
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. DETAILS:		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>NO</u> )
1. TREATMENT UNITS PROPERLY OPERATED.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
2. TREATMENT UNITS PROPERLY MAINTAINED.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. Facility employs 5 level IVs, 2 level III lab techs.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA

RUIDOSO/RUIDOSO DOWNS WWTP		PERMIT NO. NM0029165	
SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)			
9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?		<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?		<input type="checkbox"/> Y	<input type="checkbox"/> N
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?		<input type="checkbox"/> Y	<input checked="" type="checkbox"/> NA
10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?		<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?		<input type="checkbox"/> Y	<input type="checkbox"/> N
SECTION D - SELF-MONITORING			
PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. DETAILS:		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA   (FURTHER EXPLANATION ATTACHED <u>NO</u> ).	
1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
6. SAMPLE COLLECTION PROCEDURES ADEQUATE		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
a) SAMPLES REFRIGERATED DURING COMPOSITING.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
b) PROPER PRESERVATION TECHNIQUES USED.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?		<input type="checkbox"/> Y	<input checked="" type="checkbox"/> NA
SECTION E - FLOW MEASUREMENT			
PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. DETAILS:		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA   (FURTHER EXPLANATION ATTACHED <u>NO</u> )	
1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE <u>12-inch Parshall flume</u>		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
4. CALIBRATION FREQUENCY ADEQUATE. .		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
RECORDS MAINTAINED OF CALIBRATION PROCEDURES.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. .		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
6. HEAD MEASURED AT PROPER LOCATION.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
SECTION F – LABORATORY			
PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. DETAILS:		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA   (FURTHER EXPLANATION ATTACHED <u>YES</u> )	

1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
RUIDOSO/RUIDOSO DOWNS WWTP		PERMIT NO. NM0029165
SECTION F - LABORATORY (CONT'D)		
2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
4. QUALITY CONTROL PROCEDURES ADEQUATE.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
5. DUPLICATE SAMPLES ARE ANALYZED. <u>10</u> % OF THE TIME.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
6. SPIKED SAMPLES ARE ANALYZED. <u>0</u> % OF THE TIME.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
7. COMMERCIAL LABORATORY USED.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
LAB NAME	Summit Laboratories	Huther and Associates
LAB ADDRESS	900 Godfrey Ave. SW, Grand Rapids, MI 49503	1156 N. Bonnie Brae, Denton, TX 76201
PARAMETERS PERFORMED	Cyanide, Nitrogen, Phosphorus and Thallium	Biomonitoring

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.								<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>NO</u> ).
OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER	
001	NONE	NONE	NONE	NONE	NONE	CLEAR		
RECEIVING WATER OBSERVATIONS <u>None</u>								

SECTION H - SLUDGE DISPOSAL	
SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. DETAILS:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>NO</u> ).
1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY.	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503.	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA
3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: <u>CLASS A - GIVEN AWAY</u> (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)	

SECTION I - SAMPLING INSPECTION PROCEDURES (FURTHER EXPLANATION ATTACHED <u>  </u> ).	
1. SAMPLES OBTAINED THIS INSPECTION.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
2. TYPE OF SAMPLE OBTAINED	
GRAB <u>                  </u> COMPOSITE SAMPLE <u>  </u> METHOD <u>                  </u> FREQUENCY <u>                  </u>	
3. SAMPLES PRESERVED.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
4. FLOW PROPORTIONED SAMPLES OBTAINED.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
7. SAMPLE SPLIT WITH PERMITTEE.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED.

☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT.

☐ Y ☐ N ☒ NA

### **Introduction**

On July 22, 2013, Sarah Holcomb and Bruce Yurdin of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Ruidoso/Ruidoso Downs Wastewater Treatment Plant (WWTP). The Ruidoso/Ruidoso Downs WWTP has a design flow capacity of 2.7 MGD (million gallons per day) and is classified as a major municipal discharger under the Federal Clean Water Act, Section 402, of the National Pollutant Discharge Elimination System (NPDES) permit program. It is assigned NPDES permit number NM0029165. This permit regulates the WWTP discharge to the Rio Ruidoso in Segment 20.6.4.209 of the Pecos River Basin according to the *State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4 NMAC*. This segment includes the designated uses of domestic water supply, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat, public water supply and primary contact.

The NMED performs a certain number of CEIs for the U.S. Environmental Protection Agency (USEPA), Region VI, under the NPDES permit program, in accordance with the Federal Clean Water Act. USEPA uses these inspections to determine compliance with the NPDES permit program. This inspection report is based on information provided by the permittee's representatives, observations made by the NMED inspector, and records and reports kept by the permittee and/or NMED.

Upon arrival at the WWTP at 1100 hours on July 22, 2013, the inspectors met Mr. Bobby Snowden, Department Supervisor, and Mr. Isaac Garcia, Chief Operator. Upon arrival, the inspector showed her credentials, explained the purpose of the inspection and conducted the entrance interview and went on a tour of the facility with Mr. Snowden and Mr. Garcia. Inspection of records and the laboratory commenced thereafter. An exit interview was conducted at 1500 hours on July 22, 2012 with Mr. Snowden and Mr. Garcia at the facility. The inspector did discuss the use of NetDMR with the facility representatives, and Mr. Snowden indicated that the use of NetDMR is on his agenda for the near future.

### **Treatment Scheme**

The Ruidoso/Ruidoso Downs WWTP is a new facility that was placed online in April 2011. The remnants of the old plant still exist on the site, but have been blocked off; the old components that still make up part of the facility footprint but are not used are the influent screw pumps and the old equalization and aeration basins.

Influent enters the facility through a 24-inch line to the influent lift station. The influent lift station is equipped with four Flygt influent pumps, which are each capable of handling a 3 million gallon flow. There is a dedicated backup generator for the influent pumps. The flow travels from the influent pump station into the facility through a 12 inch Parshall flume and Magmaster flow meter. It is then conveyed to the coarse bar screen. The bar screen is a mechanical Ovivo bar screen with 0.25" openings. The bar screen is set on a float timer, but also has a regular timer for redundancy. The coarse screening facility is equipped with an emergency bypass. The screenings are sent to a hopper located next to the screen and materials are taken to the landfill.

After the coarse materials are removed from the influent, the flow enters a Smith & Loveless grit chamber. The grit is also sent to a hopper which is then taken to the landfill after drying. At this point, the operators have the capability to send flows that are over 1400 gpm to the equalization (EQ) basin. The current EQ basin consists of the old aeration basins from the old facility. The facility has 660,000 gallons of storage available to them here. If there is influent in the EQ basin, it is bled back into the plant prior to the grit/fines removal when the influent flow is less than 700 gpm.

After the grit chamber, the flow enters the fine screens. The screens are equipped with a 0.3mm opening. The screened material then goes through a rinsing process and is then sent to compactors and the grit classifier, while the filtrate continues through the rest of the plant. After this filtration process, the nitrogen is typically less than 3 mg/L, according to the facility's representatives.

The filtered influent then proceeds to biological treatment. This plant is designed as an intensive nutrient removal MBR (membrane bioreactor), and consequently, the wastewater is sent through a number of specialized chambers prior to entering the membranes. The first chamber the wastewater enters in this phase is an anaerobic selector, which functions specifically for bio-phosphorus removal. From this area, the wastewater then flows into a de-oxygenation basin, where it is then mixed with RAS (return activated sludge). From this point, the wastewater is then sent to the pre-anoxic zone. This particular basin is equipped with submersible mixers in order to keep the solids in suspension while maintaining anoxic conditions. Next is the pre-aeration basin, which is equipped with fine bubble diffusers to facilitate nitrogen stripping. Yet another anoxic zone (referred to as the post-anoxic zone) is the next step after the pre-aeration basin. At this point, facility operators have the option to add aluminum sulfate or methanol if needed to further reduce nitrogen and phosphorus levels in the wastewater. Solids from the post-anoxic basin are recycled back to the anaerobic basin to add food for the bio-phosphorus removal process. Currently, facility staff is relying on the biological methodology to remove as many nutrients as possible and are not adding chemicals.

At this point, the wastewater is sent to the MBR basins. There are three MBR trains, each capable of treating 900,000 gallons each. There is the capability to build the plant out to accommodate another train (capable of treating another 900,000 gallons) if the facility needs to do so in the future – there is an empty MBR basin at this time. Within each MBR basin, there are 8 lower and 8 upper cassettes. Each cassette contains 200 filters, which means there are approximately 3,200 filters in each basin (19,200 filters in total). These filters are equipped with a 10 year warranty. The MBR basins are where biological treatment as well as more filtration of the wastewater occurs.

From the MBR basins, the treated wastewater is conveyed to the UV disinfection facility. This facility is equipped with two UV banks, one of which is currently online. After disinfection, the effluent is pumped into the washwater wet well. Any effluent not pumped here then travels through an 18 inch Parshall flume and through an 18 inch line to the Rio Ruidoso.

### **Solids**

WAS (waste activated sludge) is removed from the MBR and sent to the thickener. The thickener, with the assistance of a polymer, thickens the sludge to about 2.5-3%, and is then sent to the digester for stabilization. The digester contains 3 cells (and can be expanded to 4 cells if needed in the future). From the digester, sludge is sent to the belt filter press, and is then transferred outside to “cook” to meet the requirements of Class A sludge. The facility typically wastes 5 days a week and runs their filter press two days per week. When ready, the sludge is given away for beneficial use.

### **Further Explanations**

Note: The sections are arranged according to the format of the enclosed EPA Inspection Checklist (Form 3560-3), rather than being ranked in order of importance.

#### **Section F - Laboratory Evaluation – Overall Rating of “Satisfactory”**

The permit states in Part III.C.5.a, Monitoring Procedures:

*Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.*

40 CFR Part 136.3 states in Table I.B:

<i>Parameter</i>	<i>Methodology</i> <sup>58</sup>	<i>EPA</i> <sup>52</sup>	<i>Standard methods</i>	<i>ASTM</i>	<i>USGS/AOAC/Other</i>
<i>9. Biochemical oxygen demand (BOD<sub>5</sub>), mg/L</i>	<i>Dissolved Oxygen Depletion</i>		<i>5210 B–2001</i>		<i>973.44<sup>3</sup>, p. 17.<sup>9</sup>, I–1578–78,<sup>8</sup> See footnote.<sup>10,63</sup></i>

And, Standard Methods 5210 B – 2001 states:

*The DO update of seeded dilution water should be between 0.6 and 1.0 mg/L.*

And,

*Dilutions that result in a residual DO of at least 1 mg/L and a DO uptake of at least 2 mg/L after 5 d incubation produce the most reliable results.*

#### **Findings** for Laboratory:

At the time of this inspection, it was very evident that the facility prides themselves on doing a consistent job keeping accurate data on the capabilities of their plant. The lab and procedures appeared to be well managed and well monitored.

The temperature of the BOD incubator discussed in the last inspection report appeared to have been resolved. The internal thermometer, when checked during this inspection, was reading in the required range.

During review of the BOD calculations themselves for January 2013, the inspector noted that one of the final BOD bottles had not qualified as required in Standard Methods, having resulted in a residual DO of less than 1.0 mg/L. This particular bottle was still used in the overall calculations for reporting on the DMR.



## Discharge Monitoring Report Calculation Check

The DMR calculation check was conducted for the parameter of BOD for the months of January 2013.

✓ = in agreement with calculation result submitted on facility's DMR.

<u>Date</u>	<u>BOD Result</u>
1-2-2013	0.94 mg/L
1-9-2013	1.05 mg/L
1-16-2013	1.46 mg/L
1-23-2013	1.12 mg/L
1-30-2013	1.05 mg/L

### Loading:

January's 30-day average :

$0.94 \text{ mg/L} \times 8.34 \times 2.0 \text{ mgd} = 15.68 \text{ lbs/day}$

$1.05 \text{ mg/L} \times 8.34 \times 1.5 \text{ mgd} = 13.14 \text{ lbs/day}$

$1.46 \text{ mg/L} \times 8.34 \times 1.39 \text{ mgd} = 16.93 \text{ lbs/day}$

$1.12 \text{ mg/L} \times 8.34 \times 1.4 \text{ mgd} = 13.08 \text{ lbs/day}$

$1.05 \text{ mg/L} \times 8.34 \times 1.42 \text{ mgd} = 12.43 \text{ lbs/day}$

Avg:  $(15.68+13.14+16.93+13.08+12.43)/5 = 14.25 \text{ lbs/day}$  (This was reported as 14.2 lbs/day) ✓

January's 7-day average = 16.93 lbs/day (This was reported as 16.9 lbs/day) ✓

### Concentration:

January's 30-day average =  $(0.94 \text{ mg/L} + 1.05 \text{ mg/L} + 1.46 \text{ mg/L} + 1.12 \text{ mg/L} + 1.05 \text{ mg/L})/5 = 1.12 \text{ mg/L}$  (this was reported as <2 mg/L) ✓

January's 7-day average = 1.46 mg/L (This was reported as <2 mg/L) ✓

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